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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/783,549 02/15/01 YAMAGUCHI N 202990US-2SR

022850 TM01/0921
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EXAMINER

ART UNIT	PAPER NUMBER
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2613
DATE MAILED: 09/21/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/783,549

Applicant
Yamaguchi et al

Examiner
Richard Lee

Art Unit
2613



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-45 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/738,934.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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1. Claims 25, 26, 43, and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claim 25, line 4, "section" should be changed to "means" in order to provide proper antecedent basis for the same as specified at line 2; and

(2) claim 43, line 4, "section" should be deleted for clarity.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 19-21, 27-30, 36-39, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamaguchi et al (6,154,495).

Yamaguchi et al discloses a video coding and video decoding apparatus for changing a resolution conversion according to a reduction ratio setting information signal as shown in Figures 2, 3, 18, 34, and the same video decoding apparatus and method as claimed in claims 19-21, 27-30, 36-39, and 45, comprising the same decoder means (400 of Figure 3) for decoding an encoded alpha-map signal for discriminating a background of an input signal and a plurality of objects thereof (see column 9, lines 6-23); motion compensation prediction decoder means (350

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of Figure 3) for decoding arbitrary shape pictures of the objects in accordance with the alpha-map signal to obtain a plurality of decoded arbitrary shape picture signals; a plurality of memory means (see Figure 18, column 9, lines 6-23, column 10, lines 35-43; column 18, lines 35-60) for storing a background signal representing the background and the decoded arbitrary shape picture signal, respectively, the decoded arbitrary shape picture signal being read out from the plurality of memory means to be used for a motion compensation prediction of the decoded arbitrary shape picture, the plurality of memory means storing the decoded arbitrary shape picture signals, respectively, the decoded arbitrary shape picture signals being independently read out from the memory means to be used for a motion compensation prediction of each of the decoded arbitrary shape picture signals; and write switch means for selectively switching the plurality of memory means in accordance with the alpha-map signal to selectively store the background signal and the decoded arbitrary shape picture signal in the memory means, and read switch means for selectively switching the plurality of memory means in accordance with the alpha-map signal to selectively read out the background signal and the decoded arbitrary shape picture signal therefrom (see Figure 18, column 9, lines 6-23, column 10, lines 35-43, column 18, lines 35-60).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 22-24, 31-33, and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al as applied to claims 19-21, 27-30, 36-39, and 45 in the above paragraph (3), and further in view of Oh et al (5,686,956).

Yamaguchi et al discloses substantially the same video decoding apparatus and method as above, further including second memory means for storing the background signal (see column 9, lines 6-23, column 10, lines 35-43, column 18, lines 35-60).

Yamaguchi et al does not particularly disclose, though, wherein the plurality of memory means include a plurality of first memory means for storing, respectively, decoded arbitrary shape picture signals representing different objects and write and read switch means for selectively switching the first memory means and the second memory means in accordance with the alpha-map signal to read out the decoded arbitrary shape picture signals and the background signal therefrom as claimed in claims 22-24, 31-33, and 40-42. It is noted that Yamaguchi et al does teaches a single memory means for storing/reading decoded arbitrary shape picture signals and the switching of the first and second memory means (see column 9, lines 6-23, column 10, lines 35-43, column 18, lines 35-60), but Yamaguchi et al does not particularly teach the use of a plurality of memory means for storing the decoded arbitrary shape picture signals as claimed. However, Oh et al discloses an object by background information coding apparatus and method as shown in Figures 1-3, and teaches the conventional use of a plurality of memory means for storing decoded pictures signals (see 214, 215 of Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art, having the Yamaguchi et al and Oh et al references in front of him/her and

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the general knowledge of motion estimations/compensations withing video image compression/decompression systems, would have had no difficulty in providing the plural memory means as taught by Oh et al for the decoded arbitrary shape picture signals as part of or before the motion compensator 350 of Figure 3 of Yamaguchi et al for the same well known storage and selective switching of memories purposes as claimed.

6. Claims 25, 26, 34, 35, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al and Oh et al as applied to claims 19-24, 27-33, 36-42, and 45 in the above paragraphs (3) and (5), and further in view of Dufour et al (5,528,299).

The combination of Yamaguchi et al and Oh et al disclose substantially the same video decoding apparatus and method as above, further including motion compensation prediction means for calculating a motion compensation prediction value on the basis of readout of one of the decoded arbitrary shape picture signals and motion vector information input to the motion compensation prediction means, wherein the motion compensation prediction means calculates the motion compensation prediction value for each of the decoded arbitrary shape picture signals stored in the memories in accordance with the alpha-map signal (see 350 of Figure 3, column 9, lines 6-23, column 10, lines 35-43, column 32, lines 50-56).

The combination of Yamaguchi et al and Oh et al does not particularly disclose, though, transform means for orthogonally transforming the motion compensation prediction value on the basis of the alpha-map signal to obtain an orthogonal transform coefficient of the motion compensation prediction value of a picture of the arbitrary shape indicated by the alpha-map

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signal as claimed in claims 25, 34, and 43. However, Dufour et al discloses coding system for digital signals corresponding to television pictures and corresponding decoding system as shown in Figures 3 and 5, and teaches the conventional use of a transform means (i.e., 851, 861 of Figure 5) for orthogonally transforming motion compensation prediction values (i.e., 967, 968 of Figure 5). Therefore, it would have been obvious to one of ordinary skill in the art, having the Yamaguchi et al, Oh et al, and Dufour et al references in front of him/her and the general knowledge of motion compensation predictions within encoders/decoders, would have had no difficulty in providing the orthogonal transformer of Dufour et al after the motion compensated prediction means 350 of Figure 3 of Yamaguchi et al for the same well known orthogonal transform of motion compensation prediction values purposes as claimed.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamaguchi et al (5,978,514; 6,256,346; 5,818,531, 6,028,634) discloses various types of image data coding and decoding systems.

Eyuboglu et al discloses a transcoding device.

Zhu discloses a device and method for digital video transcoding.

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:


(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

9/19/01